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Notice of Allowability	Applicati n N .	Applicant(s)	
	10/065,432	KANG ET AL.	
	Examiner	Art Unit	
	Evan Pert	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the c rrespondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 10-17-02.
2. ☒ The allowed claim(s) is/are 1-43.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows, to correct minor grammatical informalities identified in the specification:

In claim 1, line 2, change "substrate, forming" to --substrate and forming--.

In claim 2 (line 2) and claim 22 (line 2) change "the testing area" to --a testing area--.

In claim 6 (line 1) and claim 31 (line 1), change "Fowler-Nordehim" to --Fowler-Nordheim--.

In claim 9 and claim 33 (line 2), change "voltage, the" to --voltage and the--.

In claim 10 and claim 34 (line 2), change "voltage, the" to --voltage and the--.

In claim 11 and claim 15 and claim 19 and claim 24 and claim 28 and claim 35 and claim 39 and claim 43 (line 1), change "comprises" to --comprising--.

In the abstract, line 1, change "a wafer" to --wafer--.

At [0002], line 2, change "particularly, to a method" to --particularly, relates to a method--.

At [0032] (lines 2 and 4), [0034] (line 6), [0045] (line 1), change each occurrence of "Fowler-Nordehim" to --Fowler-Nordheim--.

At [0033], line 7, change "here, an tunnel" to --here, a tunnel--.

Drawings

2. Applicant's drawings, particularly Fig. 8, are seemingly informal. Applicant should formalize the drawings for better quality printing, in response to this action.

Allowable Subject Matter

3. Claims 1-43 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art does not disclose applicant's method as claimed, particularly characterized by the use of a ratio of constants calculated from an equation based on first and second swing time-dependent DC ramping voltages, the constants preferably being Beta values derived by the Fowler-Nordheim tunneling equation.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wang et al. (US 6,583,641 B2) is cited for disclosing a method for monitoring oxide quality based on a constant "R" derived from voltage values of swing time-dependent DC ramping voltages, but does not disclose the ratio, for example, as claimed by applicant.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan Pert whose telephone number is 703-306-5689. The examiner can normally be reached on M-F (7:30AM-3:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ETP
April 19, 2004


EVAN PERT
PRIMARY EXAMINER